Recovery Plan Action Status

Plan Name: Curtis' Pearly Mussel

Plan Status: Final Plan Date: 04-Feb-86 Lead Agency: USFWS

Lead Office: Columbia Ecological Services Field Office 234-2132)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Curtis pearlymussel (Epioblasma florentina curtisii)	1	A1	Define habitat needs	Partially Complete	Prior to FY 1995		Missouri Department of Conservation, USFWS Research, USFWS Regional Office 3 - Endangered Species	Research: Habitat Requirements	Graduate Student	
Curtis pearlymussel (Epioblasma florentina curtisii)	1	A2	Review habitat impacting proposals	Ongoing Current	Prior to FY 1995		U.S. Army Corps of Engineers, Missouri Department of Conservation, U.S. Forest Service, Mark Twain National Forest, USFWS Regional Office 3 - Endangered Species	Other: Regulations	Internal Technical Assistance	
Curtis pearlymussel (Epioblasma florentina curtisii)	1	A3	Land protection planning	Not Started			Missouri Department of Conservation, U.S. Forest Service, Mark Twain National Forest, USFWS Regional Office 3 - Endangered Species	Management: General	Internal Administrative	Includes planning for Little Black River, Castor River & Cane Creek
Curtis pearlymussel (Epioblasma florentina curtisii)	1	A4	Protect riparian zone	Partially Complete	Prior to FY 1995		U.S. Army Corps of Engineers, Missouri Department of Conservation, U.S. Forest Service, Mark Twain National Forest, USFWS Regional Office 3 - Endangered Species, USFWS Regional Office 3 - Reality	Acquisition	Internal Administrative	Task Duration: Est. FY 90 completion; FY 1987 - 1989 Costs TBD by strategies developed in task A3

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Curtis pearlymussel (Epioblasma florentina curtisii)	1	A5	Other habitat protections	Not Started			Missouri Department of Conservation, U.S. Forest Service, Mark Twain National Forest, USFWS Regional Office 3 - Endangered Species, USFWS Regional Office 3 - Law Enforcement	Other	Contract	FY 1987 - 1989 Costs and Duration TBD by strategies developed in task A3
Curtis pearlymussel (Epioblasma florentina curtisii)	1	A6	Monitor protected populations	Discontinued	Prior to FY 1995		Missouri Department of Conservation, USFWS Regional Office 3 - Endangered Species	Research: Population Surveys	Graduate Student	No extant populations are currently known. This action will resume when a population is located. Monitor populations every other year
Curtis pearlymussel (Epioblasma florentina curtisii)	1	A7	Determine the most probable causes of decline of mussels in the Little Black River system, the location of the last and largest known population of the Curtis pearlymussel.	Ongoing Current	FY 2011	FY 2013	Missouri Department of Conservation, USFWS Research	Research, Research: Ecosystem Studies, Research: Environmental Contaminants	Graduate Student, Internal Technical Assistance	
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1a(1)	Evaluate habitat conditions	Ongoing Current	Prior to FY 1995		Missouri Department of Conservation, USFWS Research, USFWS Regional Office 3 - Endangered Species	Research: Habitat Status	Graduate Student	Will begin following completion of task A1. Estimate \$25K total cost
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1a(2)	Methods to improve habitat	Not Started			Missouri Department of Conservation, USFWS Research, USFWS Regional Office 3 - Endangered Species	Research: Management Techniques	Contract	Duration TBD. Will commence after task B1a(1) completed
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1a(3)	Improve habitat	Not Started			Missouri Department of Conservation, USFWS Regional Office 3 - Endangered Species	Management	Contract	Duration TBD. Follows B1a(2)

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Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1b(1)	Identify low-density populations	Not Started			Missouri Department of Conservation, USFWS Regional Office 3 - Endangered Species	Research: Population Surveys	Contract	Much necessary data should be available from tasks A6 and B1a(1). Further work will await completion of those tasks
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1b(2)	Determine how many individuals constitute a viable population	Not Started			Missouri Department of Conservation, Tennessee Valley Authority , USFWS Research, USFWS Regional Office 3 - Endangered Species	Research: Other Information	Contract	Duration TBD. To be initiated following completion of task B
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1b(3)	Develop methods for artificial culturing and transplantation	Complete	FY 1995 - FY 1999	FY 2009	Tennessee Valley Authority , USFWS Research, USFWS Regional Office 3 - Endangered Species	Research: Propagation	Species Expert	Can adapt methods currently being developed for other naiades by Missouri State University
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1b(4)	Augment populations	Not Started			Missouri Department of Conservation, USFWS Research, U.S. Forest Service, Mark Twain National Forest, USFWS Regional Office 3 - Endangered Species	Management: Propagation	Contract	Duration TBD. To follow tasks B1b(1) and (3)
Curtis pearlymussel (Epioblasma florentina curtisii)	2	B1c	Monitor enhancement actions	Not Started			Missouri Department of Conservation, USFWS Regional Office 3 - Endangered Species	Research: Habitat Status	Contract	Duration TBD. To follow tasks B1a(3) and B1b(4)
Curtis pearlymussel (Epioblasma florentina curtisii)	3	B2a	Identify limiting factors in former range	Ongoing Current	FY 2000 - FY 2004	FY 2010	Missouri Department of Conservation, Arkansas Game and Fish Commission, USFWS Research, USFWS Regional Office 3 - Endangered Species	Research: Habitat Status	Graduate Student	

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Curtis pearlymussel (Epioblasma florentina curtisii)	3	B2b	Eliminate limiting factors in former range	Ongoing Current	FY 2000 - FY 2004		U.S. Army Corps of Engineers, Missouri Department of Conservation, Arkansas Game and Fish Commission , USFWS Regional Office 3 - Endangered Species		Internal Administrative	Duration TBD. To follow tasks B2a
Curtis pearlymussel (Epioblasma florentina curtisii)	3	B2c	Reintroductions into former range	Not Started			Missouri Department of Conservation, Arkansas Game and Fish Commission , U.S. Forest Service, Mark Twain National Forest, USFWS Regional Office 3 - Endangered Species	Management: Propagation	Contract	Duration TBD. To follow tasks B1b(3) and B2b
Curtis pearlymussel (Epioblasma florentina curtisii)	3	B2d	Protect reintroduction sites	Not Started			Missouri Department of Conservation, Arkansas Game and Fish Commission, USFWS Regional Office 3 - Endangered Species, USFWS Regional Office 3 - Law Enforcement	Other	Internal Administrative	To follow task B2c
Curtis pearlymussel (Epioblasma florentina curtisii)	3	B2e	Monitor reintroduced populations	Not Started			Missouri Department of Conservation, Arkansas Game and Fish Commission , USFWS Regional Office 3 - Endangered Species	Research: Population Surveys	Contract	To follow task B2d